

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/577264 in view of Yano et al (Pub. No.: US 2003/0012179 A1).

Re claim 1, Co-Pending Application No. 10/577264 discloses the limitations as shown in the table below, except the limitations highlighted in bold.

Co-Pending Application No. 10/577264	Instant Application
<p>1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said communication handover method comprising:</p>	<p>1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, the mobile node being so structured as to communicate with the access router connected with the access points, through radio communication with the access points within the communication available area, the communication handover method comprising:</p>
<p>a storing step of storing correspondence information describing</p>	<p>a storing step of storing correspondence information describing</p>

a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node;	a correspondence relationship between information on the access points and information on the access router connected to the access points into a predetermined information storage means of the mobile node;
a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point;	a reception step of receiving information on another access point from the another access point when communication is switched over from an access point currently in communication to another access point;
an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point;	an acquisition step of acquiring information on that access router to which the another access point is connected from the correspondence information based on the information on the another access point received at the reception step;
	a determination step of determining from the information on the access

	router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is necessary when communication is switched from the access point currently in communication to the another access point;
	an address hold control step of performing such control as to continuously use the currently assigned address information upon determination that it is not necessary to change the address information at the determination step;
an address generation step of generating address information in said subnet constituted by said access router, from the information on said access router acquired at said	an address generation step of generating address information in the subnet constituted by the access router from the information on the access router acquired at the acquisition step

acquisition step.	upon determination that it is necessary to change the address information at the determination step;
	an address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication.

Yano et al. discloses a determination step of determining from the information on the access router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is necessary when communication is switched from the access point currently in communication to the another access point (paragraph 141);

an address hold control step of performing such control as to continuously use the currently assigned address information upon determination that it is not

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necessary to change the address information at the determination step (paragraph 141 and 128);

an address generation step upon determination that it is necessary to change the address information at the determination step (paragraphs 59, 141, 110, and 111);

an address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication (paragraph 59 and fig. 1).

“Yano et al” is evidenced that differences between the instant application and Co-Pending Application No. 10/577264 do not rise to the level of patentable distinction, but rather obvious variants to one another.

3. Claim 2 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 5 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 2 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
5) The communication handover method according to claim 1, comprising a process switching step of performing a process based on conventional handover when the information on said access router to which said another access point is connected cannot be acquired from said correspondence information at said acquisition step.	2) The communication handover method according to claim 1, comprising a process switching step of performing a process based on conventional handover when the information on the access router to which the another access point is connected cannot be acquired from the correspondence information at the acquisition step.

4. Claim 3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 6 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 3 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
6) The communication handover method according to claim 1, comprising: a correspondence information reception step of receiving information relating to a change in said correspondence information from a predetermined communication apparatus which manages said correspondence information or said access router;	3) The communication handover method according to claim 1, comprising: a correspondence information reception step of receiving information relating to a change in the correspondence information from a predetermined communication apparatus which manages the correspondence information or the access router;
a correspondence information update step of updating said correspondence information stored in said predetermined information storage means with the information relating to the change in said correspondence information.	A correspondence information update step of updating the correspondence information stored in the predetermined information storage means with the information relating to the change in the correspondence information.

5. Claim 4 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 7 of copending Application No. 10/577264. Although the conflicting claims are not

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identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 7 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 4 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
7) The communication handover method according to claim 6, comprising an information check step of periodically checking said predetermined communication apparatus or said access router to see whether or not there is information relating to a new change of said correspondence information.	4) The communication handover method according to claim 3, comprising an information check step of periodically checking the predetermined communication apparatus or the access router to see whether or not there is information relating to a new change of the correspondence information.

6. Claim 5 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 8 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant

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application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 8 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 5 of the instant application.

Instant Application	Co-Pending Application No. 10/579973
8) The communication handover method according to claim 1, wherein a link layer address of said access point is used as the information on said access point, and a link layer address of said access router, a network prefix and a prefix length of said subnet constituted by said access router are used as the information on said access router.	5) The communication handover method according to claim 1, wherein a link layer address of the access point is used as the information on the access point, and a link layer address of the access router, a prefix length of the subnet constituted by the access router, and an IP address of the access router are used as the information on the access router.

7. Claim 15 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/577264 in view of Yano et al (Pub. No.: US 2003/0012179 A1).

Re claim 15, Co-Pending Application No. 10/577264 discloses the limitations as shown in the table below, except the limitations highlighted in bold.

Co-Pending Application No. 10/577264	Instant Application
12) A communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one more of access points forming a unique communication available area are connected to each of said plurality of access routers, and a mobile node present in said communication available area is so structured as to communicate with said access router connected with said access points, through radio communication with said access points, wherein said mobile node has correspondence information storage means for storing correspondence information describing	15) A communication system structured in such a way that a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, and a mobile node present in the communication available area communicates with the access router connected with the access points, through radio communication with the access points, the mobile node has correspondence information storage means for storing correspondence information describing a correspondence relationship between

<p>a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node,</p>	<p>information on the access points and information on the access router connected to the access points</p>
<p>said mobile node is structured in such a way that when communication is switched over from an access point currently in communication to another access point, information on that access router to which said another access point is connected is acquired based on the information on said another access point received from said another access point by referring to said correspondence information, and address information in said subnet constituted by said access router is generated from said acquired information on said access router.</p>	<p>when communication is switched over from an access point currently in communication to another access point, information on that access router to which the another access point is connected is acquired based on the information the another access point is connected is from another access point by referring to the correspondence information, address information in the subnet constituted by the access router is generated from the acquired information on the access router and the address information in the subnet is transmitted to the access router through an access point</p>

	currently in communication.
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“Yano et al” is evidenced that differences between the instant application and Co-Pending Application No. 10/577264 do not rise to the level of patentable distinction, but rather obvious variants to one another .

8. Claim 16 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 16 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 14 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
14) The communication system according to claim 12, structured in such a way as to execute a process by conventional handover when said mobile node cannot acquire the information on said access router to	16) The communication step according to claim 15, structured in such a way as to execute a process by conventional handover when the mobile node cannot acquire the information on the access router to which the another access

which said another access point is connected, from said correspondence information.	point is connected, from the correspondence information.
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9. Claim 17 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 25 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 25 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 17 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
25) The communication system according to claim 13, wherein a predetermined communication apparatus which manages said correspondence information is connected to said communication network, and is so structured as to	17) The communication system according to claim 15, structured in such a way that a predetermined communication apparatus which manages the correspondence information is connected to the communication network and is so

transmit said correspondence information to said mobile node.	structured as to transmit the correspondence information to the mobile node.
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10. Claim 18 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 26 of copending Application No. 10/577264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 26 of co-pending application no. 10/577264 as shown in the table below contains every element of claim 18 of the instant application.

Co-Pending Application No. 10/577264	Instant Application
26) The communication system according to claim 13, wherein when a change in the information on said access point or the information on said access router occurs, said predetermined communication apparatus receives the information on	18) The communication system according to claim 15, structured in such a way that when a change in the information on the access point or the information on the access router occurs, the predetermined communication apparatus receives the

said access point or the information on said access router after generation of the change, from said access router, updates said correspondence information managed by said predetermined communication apparatus, and informs said mobile node that said correspondence information has been changed.	information on the access point or the information on the access router after generation of the change, from the access router, updates the correspondence information managed by the predetermined communication apparatus, and informs the mobile node that the correspondence information has been changed.
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Claim Objections

11. Claim 8 is objected to because of the following informalities: implemented is spelled incorrectly. Appropriate correction is required.

12. Claim 17 is objected to because of the following informalities: the second and should be deleted where it states, "the communication network and and". Appropriate correction is required.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Functional descriptive material such as computer programs and/or data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized." See MPEP 2106.01(I). In the instant case, claims 10 and 14 do not meet the test above and therefore is rejected as non-statutory subject matter.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1, 5, 6, 10, 11, 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yano et al (Pub. No.: US 2003/0012179 A1).

Re claim 1 and 10, Yano et al discloses a communication handover method and program (Abstract, fig. 1, Summary of the Invention) for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of

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access points forming a unique communication available area are connected to each of the plurality of access routers, the mobile node being so structured as to communicate with the access router connected with the access points, through radio communication with the access points within the communication available area, the communication handover method comprising:

A storing step of storing correspondence information describing a correspondence relationship between information on the access points and information on the access router connected to the access points into a predetermined information storage means of the mobile node (paragraphs 59, 61, 141, and fig. 2);

A reception step of receiving information on another access point from the another access point when communication is switched over from an access point currently in communication to the another access point (paragraphs 110 and 141);

An acquisition step of acquiring information on that access router to which the another access point is connected from the correspondence information based on the information on the another access point received at the reception step (paragraphs 72, 110, and 141);

A determination step of determining from the information on the access router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is

necessary when communication is switched from the access point currently in communication to the another access point (paragraph 141);

An address hold control step of performing such control as to continuously use the currently assigned address information upon determination that it is not necessary to change the address information at the determination step (paragraph 141 and 128);

An address generation step of generating address information in the subnet constituted by the access router from the information on the access router acquired at the acquisition step upon determination that it is necessary to change the address information at the determination step (paragraphs 59, 141, 110, and 111); and

An address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication (paragraph 59 and fig. 1).

Re claim 5, Yano et al discloses the communication handover method according to claim 1, wherein a link layer address of the access point is used as the information on the access point, and a link layer address of the access router, a prefix length of the subnet constituted by the access router, and an IP address of the access router are used as the information on the access router (paragraph 125 and fig. 2).

Re claim 6, Yano et al discloses the communication handover method according to claim 1, wherein the correspondence information describes a correspondence relationship between the information on the access point in the subnet to which the mobile node is currently connected, and the information on the access router, and a correspondence relationship between the information on the access point in the subnet present in a neighborhood of the subnet to which the mobile node is currently connected and the information on the access router (paragraph 75).

Re claim 11 and 14, Yano et al discloses a communication message processing method and computer program (Abstract, fig. 1, Summary of the Invention) for use in at least of a plurality of access routers in a communication system in which the plurality of access routers each constituting a subnet are connected together over a communication network, at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, and a mobile node present in the communication available area is structured with the access points, through radio communication with the access points, the communication message processing method comprising:

A validity checking step of, when a message including address information in a subnet generated by the mobile node is received from the mobile node not in present in the subnet constituted by the access router,

checking a validity of the address information included in the message (paragraph 145); and

an additional service starting step of starting an establishment process of an additional service to the mobile node when it is checked that the address information is valid at the validity checking step (paragraph 145 and 146).

Re claim 15, Yano et al discloses a communication system structured in such a way that a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available are connected to each of the plurality of access routers, and a mobile node present in the communication available area communicates with the access router connected with the access points, through radio communication with the access points,

the mobile node has correspondence information storage means for storing correspondence information describing a correspondence relationship between information on the access points and information on the access router connected to the access points (paragraphs 59, 61, 141, and fig. 2), and

when communication is switched over from an access point currently in communication to another access point, information on that access router to which the another access point is connected is acquired based on the information on the another access point received from the

another access point by referring to the correspondence information, address information in the subnet constituted by the access router is generated from the acquired information on the access router and the address information in the subnet is transmitted to the access router through an access point currently in communication (paragraphs 110 and 111).

Re claim 17, Yano et al discloses the communication system according to claim 15, structured in such a way that a predetermined communication apparatus which manages the correspondence information is connected to the communication network and is so structured as to transmit the correspondence information to the mobile node (paragraph 125, fig. 1).

Re claim 18, Yano et al discloses the communication system according to claim 15, structured in such a way that when a change in the information on the access point or the information on the access router occurs, the predetermined communication apparatus receives the information on the access point or the information on the access router after generation of the change, from the access router, updates the correspondence information managed by the predetermined communication apparatus, and informs the mobile node that the correspondence information has been changed (paragraphs 108, 109, and 110).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 2, 3, 4, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (Pub. No.: US 2003/0012179 A1) as applied to claim 1 and 15 above, and further in view of Funato et al (Pub. No.: US 2003/0087646 A1).

Re claim 2, Yano et al discloses the communication handover method according to claim 1, but fails to disclose comprising a process switching step of performing a process based on conventional handover when the information on the access router to which the another access point is connected cannot be acquired from the correspondence information at the acquisition step.

However, Funato et al discloses comprising a process switching step of performing a process based on conventional handover when the information on the access router to which the another access point is connected cannot be acquired from the correspondence information at the acquisition step (paragraphs 12, 13, and 16).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it

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obvious from the combined teachings of "Yano et al" and "Funato et al" as a whole to produce the invention as claimed with a reasonable expectation of accomplishing handover in situations where router information cannot be accessed for the benefit of maintaining a connection.

Re claim 3, Yano et al discloses the communication handover method according to claim 1, but fails to disclose comprising:

a correspondence information reception step of receiving information relating to a change in the correspondence information from a predetermined communication apparatus which manages the correspondence information or the access router; and

a correspondence information update step of updating the correspondence information stored in the predetermined information storage means with the information relating to the change in the correspondence information.

However, Funato et al discloses comprising:

a correspondence information reception step of receiving information relating to a change in the correspondence information from a predetermined communication apparatus which manages the correspondence information or the access router (paragraph 51); and

a correspondence information update step of updating the correspondence information stored in the predetermined information

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storage means with the information relating to the change in the correspondence information (paragraph 52).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al" and "Funato et al" as a whole to produce the invention as claimed with a reasonable expectation of updating connection information for the benefit of improving hand off.

Re claim 4, Yano et al in combination with Funato et al disclose the communication handover method according to claim 3. Funato et al further discloses comprising an information check step of periodically checking the predetermined communication apparatus or the access router to see whether or not there is information relating to a new change of correspondence information (paragraph 17).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al" and "Funato et al" as a whole to produce the invention as claimed with a reasonable expectation of updating connection information for the benefit of improving hand off.

Re claim 7, Yano et al discloses the communication handover method according to claim 1, but fails to disclose structured in such a way that the correspondence information describes whether or not an additional service early establishment function of realizing early

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establishment of a mobility supported additional service is implemented in the access router, and

In such a way as to determine whether or not, at the address information transmission step, the access router has the additional service early establishment function implemented therein, and transmit the message only to the access router having the additional service early establishment function implemented therein.

However, Funato et al discloses structured in such a way that the correspondence information describes whether or not an additional service early establishment function of realizing early establishment of a mobility supported additional service is implemented in the access router (paragraph 52; early establishment, where early establishment is construed as a connection prior to hand off, is made when that function is supported by the access router. The mobile node knows if early establishment is accessible based on the link layer identification.), and

In such a way as to determine whether or not, at the address information transmission step, the access router has the additional service early establishment function implemented therein, and transmit the message only to the access router having the additional service early establishment function implemented therein (paragraph 52; A connection is made with the access router that allows for early establishment).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it

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obvious from the combined teachings of "Yano et al" and "Funato et al" as a whole to produce the invention as claimed with a reasonable expectation of achieving an early connection during hand off for the benefit of performing a fast hand off.

Re claim 16, Yano et al discloses the communication system according to claim 15, but fails to disclose structured in such a way as to execute a process by conventional handover when the mobile node cannot acquire the information on the access router to which the another access point is connected, from the correspondence information.

However Funato et al discloses structured in such a way as to execute a process by conventional handover when the mobile node cannot acquire the information on the access router to which the another access point is connected, from the correspondence information (paragraph 11, 12, and 13)

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al" and "Funato et al" as a whole to produce the invention as claimed with a reasonable expectation of maintaining a connection during hand off when router information is not accessible for the benefit of continued connectivity.

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18. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (Pub. No.: US 2003/0012179 A1) in combination with Funato et al (Pub. No.: US 2003/0087646 A1) as applied to claim 7 above, and further in view of Le et al (Pub. No: US 2004/0268123 A1).

Re claim 8, Yano et al in combination with Funato et al disclose the communication handover method according to claim 7, but fails to disclose structured in such a manner as to determine whether or not NSIS which enables early establishment of the mobility supported additional service is implemented in the access router.

However, Le et al discloses structured in such a manner as to determine whether or not NSIS which enables early establishment of the mobility supported additional service is implemented in the access router (paragraph 49).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al in combination with Funato et al" and "Le et al" as a whole to produce the invention as claimed with a reasonable expectation of achieving a fast handover for the benefit of maintaining a connection when the mobile is moving at high speeds.

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19. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (Pub. No.: US 2003/0012179 A1) in combination with Funato et al (Pub. No.: US 2003/0087646 A1) as applied to claim 7 above, and further in view of Jouppi et al (Pub. No.: US 2004/0109455 A1).

Re claim 9, Yano et al in combination with Funato et al disclose the communication handover method according to claim 7, but fail to disclose wherein the additional service is a QoS guarantee.

However, Jouppi et al discloses wherein the additional service is a QoS guarantee (paragraph 31).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al in combination with Funato et al" and "Jouppi et al" as a whole to produce the invention as claimed with a reasonable expectation of achieving improved quality during hand off.

20. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (Pub. No.: US 2003/0012179 A1) as applied to claim 11 above, and further in view of Le et al (Pub. No: US 2004/0268123 A1).

Re claim 12, Yano et al discloses the communication handover method according to claim 11, but fails to disclose structured in such a manner as to determine whether or not NSIS which enables early

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establishment of the mobility supported additional service is implemented in the access router.

However, Le et al discloses structured in such a manner as to determine whether or not NSIS which enables early establishment of the mobility supported additional service is implemented in the access router (paragraph 49).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al" and " Le et al " as a whole to produce the invention as claimed with a reasonable expectation of achieving a fast handover for the benefit of maintaining a connection when the mobile is moving at high speeds.

21. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (Pub. No.: US 2003/0012179 A1) as applied to claim 11 above, and further in view of Jouppi et al (Pub. No.: US 2004/0109455 A1).

Re claim 13, Yano et al discloses the communication message processing method according to claim 11, but fails to disclose the additional service is QoS guarantee.

However, Jouppi et al discloses the additional service is QoS guarantee (paragraph 31).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it

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obvious from the combined teachings of "Yano et al" and "Jouppi et al" as a whole to produce the invention as claimed with a reasonable expectation of achieving improved quality during hand off.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NALIN PILAPITIYA whose telephone number is (571)270-7122. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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